

REMARKS

The Official Action mailed June 17, 2003, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to October 17, 2003. Accordingly, the Applicant respectfully submits that this response is being timely filed.

Claims 1-20 were pending in the present application prior to the above amendment. New claims 21-33 have been added to recite additional protection to which the Applicant is entitled. Accordingly, claims 1-33 are now pending in the present application, of which claims 1-4, 21 and 22 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

The broad concept of the present invention is recited in claim 1, as follows: A method of manufacturing a light-emitting device, comprising the steps of filling an organic electroluminescence material into an evaporation cell; and heating the organic electroluminescence material in an inert gas atmosphere to form a light emitting layer on a substrate comprising the organic electroluminescence material.

Claims 2 and 4 further recite a step of placing in a reaction chamber an evaporation cell containing an organic electroluminescence material and placing a shutter above an orifice of the evaporation cell.

Claims 3 and 4 recite selective formation of a light emitting layer.

Further, new independent claims 21 and 22 include the features of claims 1 and 2, respectively, and further include the feature of "moving the evaporation cells and the substrate relative to each other during the heating step." The new claims are supported by Embodiment 1, and, more precisely, page 7, lines 16-22, and page 19, line 23 through page 20, line 4.

Paragraph 5 of the Official Action rejects claims 1-8 and 13-16 as obvious based on the combination of U.S. Patent No. 5,902,688 to Antoniadis et al. and U.S. Patent

No. 6,049,167 to Onitsuka et al. The Applicants respectfully traverse the rejection because the Official Action has not made a *prima facie* case of obviousness.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims. Antoniadis and Onitsuka do not teach or suggest heating an organic electroluminescence material in an inert gas atmosphere to form a light emitting layer on a substrate comprising the organic electroluminescence material.

The Official Action concedes that Antoniadis "does not teach that the vacuum atmosphere should be an inert gas" (page 2, Paper No. 4). The Official Action asserts that Onitsuka teaches "EL layer forming steps in the presence of an inert gas (Abstract)" (page 3, Id.). The Applicant respectfully disagrees.

It appears that Onitsuka teaches that "an organic EL multilayer structure [D10] is disposed in a gastight space defined between a substrate and a shield member and

filled with an inert gas” (Abstract). The Applicant respectfully submits that disposing an EL multilayer structure in a space filled with an inert gas is not the same as heating an organic electroluminescence material in an inert gas atmosphere to form a light emitting layer on a substrate comprising the organic electroluminescence material. Further, with respect to the EL layer forming steps, it appears that Onitsuka teaches that the organic EL multilayer (D10) is formed in a film forming section LP including working vacuum chambers 11 to 15 (col. 11, line 53 through col. 15, line 22; Fig. 5). It does not appear that Onitsuka teaches or suggests that the vacuum chambers 11 to 15 include an inert gas. Therefore, Antoniadis and Onitsuka do not teach or suggest heating an organic electroluminescence material in an inert gas atmosphere to form a light emitting layer on a substrate comprising the organic electroluminescence material.

Since Antoniadis and Onitsuka do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

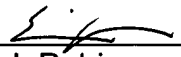
Paragraph 6 of the Official Action rejects dependent claims 9-12 as obvious based on the combination of Antoniadis, Onitsuka and U.S. Patent No. 5,945,967 to Rallison et al. Paragraph 7 of the Official Action rejects dependent claims 17-20 as obvious based on the combination of Antoniadis, Onitsuka and U.S. Patent No. 5,534,314 to Wadley et al.

Rallison and Wadley do not cure the deficiencies in Antoniadis and Onitsuka. The Official Action relies on Rallison to allegedly teach EL displays for video camera displays (page 3, *Id.*) and on Wadley to allegedly teach evaporation at atmospheric pressure (page 4, *Id.*). Antoniadis, Onitsuka, Rallison and Wadley, either alone or in combination, do not teach or suggest heating an organic electroluminescence material in an inert gas atmosphere to form a light emitting layer on a substrate comprising the organic electroluminescence material. Since Antoniadis, Onitsuka, Rallison and Wadley do not teach or suggest all the claim limitations, a *prima facie* case of obviousness

cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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